

## **MSP**

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Last Update: 12-09-92

File Name: G:\OPR\DOCO\PROGRAM\MSP.WP

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### **INTRODUCTION**

The MSP program is a supervisor program that controls the front-end system of an SC host. MSP uses [1,4]MARSFE.SYS as its disk front-end region. MARSFE.SYS appears as a single file to the monitor, but to MSP (due to a special pointer in the home blocks) it is a collection of files. These files contain microcode, diagnostics, bootstraps, and command files used by MSP. MARSFE.SYS is created by the program MSFILE, which uses a source area on disk, [1,340], to retrieve the front-end files and create the front-end region on disk. See the chapter on MSFILE and the Procedures Manual for details.

### **COMMAND SYNTAX**

The command syntax in MSP consists of one or more keywords followed by any number of switches and arguments. An optional comment may also follow the command.

COMMAND[/switch:argument] [argument] [;comments]

An argument may be a keyword, a file specification, a string, or a number. At least a SPACE or TAB must separate arguments.

### **KEYWORDS**

A keyword is a character string. If a keyword is unique, then it may be abbreviated, and typing an ESCAPE causes the rest of the keyword to be filled in by MSP. A question mark lists all keywords which match the keyword input which has been entered.

### **SWITCHES**

Switches are keywords which have a slash (/) as the first character. They normally appear after the command keyword and before the command arguments. Switches which require an argument must be separated from the argument by a colon.

### **FILE SPECIFICATION**

A file specification consists of an optional logical device name and filename. A colon separates the logical device and filename. A filename has a name and extension, which are separated by a period. The filename can be a maximum of six characters, and the extension, three characters.

## **COMMANDS**

### **ASSIGN CHANNEL**

This command specifies the logical relationship between a channel and the SELECTed CPU. Both CPU and channel must belong to the same system.

ASSIGN CHANNEL 0

### **AUTOBOOT**

Automatically reloads microcode and boots MSP from disk.

### **CH (clock halt)**

This command stops the clock of the selected CPU or channel.

CH/UNIT:CHN1

### **DEASSIGN UNIT**

This command removes a channel or CPU from the system. The unit must NOT be in use by the system, or MSP may become confused and cause the system to crash.

DEASSIGN UNIT CHN2

### **DIRECTORY**

This command performs a directory of the selected front-end file system, for the specified file. If no file is specified, the entire directory of the front-end is displayed. Use the SET.SOURCE command to change source of the DIRECTORY between disk and tape.

### **HALT**

This command causes the selected CPU to stop executing programs.

### **IM**

This command initializes a memory bank unit.

### **LOAD MICROCODE**

This command loads and/or verifies the various hardware memories of the selected CPU or channel with

## **MSP**

### **REBOOT**

This command reloads the supervisor program with new code from the selected source. The REBOOT process may be aborted at any time with no effect to the current supervisor program. Upon power up, the ROM version of MSP is loaded into RAM and executed. This version is limited, and is used only to bootstrap the real supervisor program.

REBOOT MSP

### **REWIND**

This command causes a tape mounted on the selected tape source to be rewound. A new MSP prompt appears only when the rewind has been completed.

### **RUN**

This command will run a main memory program.

RUN BOOTSA

### **SELECT**

This command specifies the selected unit. If the unit is a channel or CPU, then it must be in the current system before it can be selected. If no argument is supplied, information about the current selected unit is displayed.

SELECT CHN0

### **SET CONSOLE**

This command sets the console type. Arguments are:

**MAINTENANCE** - Programmer mode hardware debugging commands.

**OPERATOR** - Only commands required by an operator to bring up a system.

**PROGRAMMER** - Operator mode commands and commands used to debug software.

### **SET SOURCE**

This command sets the default front-end source area to be accessed when no logical device is given in a file specification. MSP does not verify if the channel is appropriate for accessing the source type (DISK or TAPE) until the source is actually accessed. This allows command files to execute successfully even though a channel has been moved or removed. Tapes must be in a core dump mode, and may be 1600 or 6250 BPI.

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**SHOW VERSION/ALL**

Displays directory of channel microcode versions:

CHN0 microcode SI10U.BIN version 4/ 6

**SHUTDOWN**

This command shuts down the monitor.

**TAKE**

This command causes MSP to take and execute commands from a command file. If no extension is specified, .CMD is assumed. Command files cannot be nested, but they may be chained. The last statement in a command file may be another TAKE command.

TAKE POWINI

**HOW TO RUN MSP**

To run MSP, you must type a ^\ on the CTY of an SC system. There is also a reset switch on the SC processor, which will reset everything! There are three different command prompts in MSP:

MSPROM> (This prompt says that no MSP is loaded)  
MSP# (The MSP program running is the version in ROM:)  
MSP> (The MSP version running is from disk or tape)

If an SC is to be cold-started, the RESET switch will load a bootstrap program from its Read-Only Memory (ROM). The ROM versions of MSP and microcode are incomplete programs. They support only the commands necessary to retrieve the complete versions from disk (or tape). Because of this, be aware that some MSP commands will not work at the MSP# prompt.

See the Procedures Manual for reloads, running crashes, and front-end building.